



## Climatic, socio-economic, and health factors affecting human vulnerability to cholera in the Lake Victoria basin, East Africa

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### Abstract:

Cholera epidemics have a recorded history in the eastern Africa region dating to 1836. Cholera is now endemic in the Lake Victoria basin, a region with one of the poorest and fastest growing populations in the world. Analyses of precipitation, temperatures, and hydrological characteristics of selected stations in the Lake Victoria basin show that cholera epidemics are closely associated with El Nino years. Similarly, sustained temperatures high above normal (T(max)) in two consecutive seasons, followed by a slight cooling in the second season, trigger an outbreak of a cholera epidemic. The health and socioeconomic systems that the lake basin communities rely upon are not robust enough to cope with cholera outbreaks, thus rendering them vulnerable to the impact of climate variability and change. Collectively, this report argues that communities living around the Lake Victoria basin are vulnerable to climate-induced cholera that is aggravated by the low socioeconomic status and lack of an adequate health care system. In assessing the communities' adaptive capacity, the report concludes that persistent levels of poverty have made these communities vulnerable to cholera epidemics.

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### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Quality, Precipitation, Temperature

**Food/Water Quality:** Pathogen

#### Geographic Feature:

resource focuses on specific type of geography

Freshwater

#### Geographic Location:

resource focuses on specific location

Non-United States

# Climate Change and Human Health Literature Portal

**Non-United States:** Africa

**African Region/Country:** African Country

**Other African Country:** Kenya;Uganda;Tanzania

**Health Impact:** ☐

specification of health effect or disease related to climate change exposure

Infectious Disease

**Infectious Disease:** Foodborne/Waterborne Disease

**Foodborne/Waterborne Disease:** Cholera

**Mitigation/Adaptation:** ☐

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

**Population of Concern:** ☐

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

**Other Vulnerable Population:** People lacking an adequate health care system

**Resource Type:** ☐

format or standard characteristic of resource

Research Article

**Resilience:** ☐

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

**Timescale:** ☐

time period studied

Time Scale Unspecified

**Vulnerability/Impact Assessment:** ☐

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content